

# Package ‘actlifecounts’

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**Type** Package

**Title** Generate Activity Counts from Raw Accelerometer Data

**Version** 1.0.0

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**Description** A tool to obtain activity counts, originally a translation of the 'python' package 'agcounts' <<https://github.com/actigraph/agcounts>>. This tool allows the processing of data from any accelerometer brand, with a more flexible approach to handle different sampling frequencies.

**Encoding** UTF-8

**Depends** R (>= 2.10), gsignal, pracma

**RoxygenNote** 7.1.2

**License** LGPL (>= 3)

**Suggests** testthat (>= 3.0.0)

**Config/testthat/edition** 3

**NeedsCompilation** no

**Repository** CRAN

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## R topics documented:

bpf_filter	2
get_counts	2
resample_10hz	3
resample_30hz	4
sum_counts	4
trim_data	5

<b>Index</b>	<b>6</b>
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bpf_filter	<i>bpf_filter</i>
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**Description**

Bandpass filter for actigraph downsampled data

**Usage**

```
bpf_filter(downsample_data = c(), verbose = FALSE)
```

**Arguments**

downsample_data	Matrix containing downsampled data
verbose	Print diagnostic messages

**Value**

The filtered data

**Author(s)**

Jairo Hidalgo Migueles

**References**

Ali Neishabouri et al. DOI: <https://doi.org/10.21203/rs.3.rs-1370418/v1>

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get_counts	<i>get_counts</i>
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**Description**

get\_counts

**Usage**

```
get_counts(raw, sf, epoch, lfe_select = FALSE, verbose = FALSE)
```

**Arguments**

raw	Matrix containing raw data
sf	Sample frequency of raw data (Hz)
epoch	Epoch length to aggregate activity counts
lfe_select	False for regular trimming, True for allow more noise
verbose	Print diagnostic messages

**Value**

Matrix containing the count values per epoch

**Author(s)**

Jairo Hidalgo Migueles

**References**

Ali Neishabouri et al. DOI: <https://doi.org/10.21203/rs.3.rs-1370418/v1>

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resample\_10hz

*resample\_10hz*

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**Description**

Get data back to 10 Hz for accumulation

**Usage**

```
resample_10hz(trim_data = c(), verbose = FALSE)
```

**Arguments**

trim\_data      Matrix containing the trimmed/thresholded data

verbose        Print diagnostic messages

**Value**

Resampled data

**Author(s)**

Jairo Hidalgo Migueles

**References**

Ali Neishabouri et al. DOI: <https://doi.org/10.21203/rs.3.rs-1370418/v1>

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resample_30hz	<i>resample_30hz</i>
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**Description**

Resample the raw data.

**Usage**

```
resample_30hz(raw = c(), sf = 30, verbose = FALSE)
```

**Arguments**

raw	Matrix containing raw data
sf	Sample frequency of raw data (Hz)
verbose	Print diagnostic messages

**Value**

resampled\_data

**Author(s)**

Jairo Hidalgo Migueles

**References**

Ali Neishabouri et al. DOI: <https://doi.org/10.21203/rs.3.rs-1370418/v1>

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sum_counts	<i>sum_counts</i>
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**Description**

Generate counts per epoch.

**Usage**

```
sum_counts(downsample_10hz, epoch = 60, verbose = FALSE)
```

**Arguments**

downsample_10hz	Matrix containing downsampled to 10hz data
epoch	Used to compute how many raw samples are used for computing an epoch
verbose	Used to compute how many raw samples are used for computing an epoch

**Value**

Matrix with counts per epoch in the 3 axes

**Author(s)**

Jairo Hidalgo Migueles

**References**

Ali Neishabouri et al. DOI: <https://doi.org/10.21203/rs.3.rs-1370418/v1>

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trim_data	<i>trim_data</i>
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**Description**

trim\_data

**Usage**

```
trim_data(bpf_data = c(), lfe_select = FALSE, verbose = FALSE)
```

**Arguments**

bpf_data	Matrix containing filtered data
lfe_select	False for regular trimming, True for allow more noise
verbose	Print diagnostic messages

**Value**

The trimmed/thresholded data

**Author(s)**

Jairo Hidalgo Migueles

**References**

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# Index

`bpf_filter`, 2

`get_counts`, 2

`resample_10hz`, 3

`resample_30hz`, 4

`sum_counts`, 4

`trim_data`, 5